

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: ARAI, et al.

Serial No.: 10/790,180

Filed: 3/2/2004

Title: METHOD OF DETECTING PARTICLES AND A PROCESSING
APPARATUS USING THE SAME

Art Unit: 1792

Examiner: R. Zervigon

Conf. No.: 3237

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR 1.97 & 1.98

Mail Stop: DD
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

April 8, 2008

Sir:

In the matter of the above-identified application, applicants are submitting herewith documents which were cited in an office action in a corresponding foreign application on February 5, 2008 and a listing and copies of the documents listed on the attached Form(s) PTO/SB/08A and/or PTO/SB/08B for the Examiner's consideration.

This information disclosure statement is being submitted before the mailing date of either a final action or a notice of allowance and is accompanied by the following certification specified in 37 CFR 1.97(e).

On information and belief, I hereby certify that each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.

To the extent that the documents listed on the attached Form(s) PTO/SB/08A and/or PTO/SB/08B are not in the English language, the requirement of 37 CFR

1.98(a)(3) for a concise explanation of the relevance is satisfied by an English language version abstract of the documents, an English language patent family member, and the following remarks.

Japanese Publication No. 09-203704 is cited as disclosing a particle detection method by detecting particles by sensing light reflected from particles by the irradiation of a laser beam at a portion between a processing chamber and an exhausting port. This document discloses the use of two windows, one (92) for letting in the laser beam and the other (108) for detecting light reflected from the particles between the processing chamber and the exhausting port. Therefore, this document does not disclose nor suggest the use of one measurement window for irradiation and detection.

Japanese Publication No. 11-044654 is cited as disclosing particle detection method by detecting particles by sensing light reflected from particles by the irradiation of a laser beam at a portion outside the plasma generation region. This document discloses scanning the laser beam by using oscillation mirror 33 and discloses the use of two windows, one (17a) for letting in the laser beam and the other (17b) for detecting light reflected from the particles at a portion outside the plasma generation region. Therefore, this document does not disclose nor suggest using one measurement window for irradiation and detection.

Japanese Publication No. 2001-196431 is cited as disclosing identifying particle growing portion inside the processing chamber or indicate cleaning timing of the etching chamber by monitoring particles floating inside the plasma existing area. This document substantially differs from the present invention because it monitors particles inside the plasma area, whereas the present invention detects particles outside of the region where the plasma is generated.

It is respectfully requested that this information disclosure statement and the documents listed be considered by the Examiner.

Please charge any shortage in the fees due in connection with the filing of this paper, including excess claim fees, to Deposit Account No. 01-2135 (501.43537X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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